

CLAIMS

1. Immunogenic compositions, characterized in that they are created from preparations obtained by:

incubation of first means expressing the target receptor(s) of an infectious pathogenic agent, causing infections in a mammal by bonding and then fusion with target cells, with second means expressing at least the regions of the pathogenic agent recognizing the said targets under conditions enabling interaction of the first and second means so as to form a complex,

this incubation step being done with different intervals in order to produce complexes corresponding to different fusion stages, and

putting the complexes formed into contact with a binding agent for different intervals, in order to bind complexes with different exposures and conformations of epitopes against which antibodies are to be formed,

the said first and second means being tolerated by mammals.

20 2. Compositions according to claim 1, characterized in that the first means are autologous mammal cells, and particularly healthy human cells taken from a patient to be vaccinated.

25 3. Compositions according to claim 1, characterized in that the first means are vectors expressing the target receptor(s) at their surface.

4. Compositions according to claim 1, characterized in that the first means are liposomes bringing the said receptor(s) to their surface, and 30 particularly viral vectors such as defined in claim 3.

5. Compositions according to any one of claims 1 to 4, characterized in that the second means are

previously transformed cells with a vector carrying at least one bonding region to at least one receptor, particularly by a viral vector.

6. Compositions according to any one of claims 1
5 to 4, characterized in that the second means are made from viral vectors carrying at least one bonding region to a target receptor.

7. Compositions according to any one of claims 1
10 to 4, characterized in that the second means used are infected cells that produce pathogenic agents or are composed of infectious pathogenic agents.

8. Compositions according to any one of claims 1
15 to 7, characterized in that the said pathogenic agents are viruses, and particularly retroviruses, bacteria mycobacteria, or parasites such as *Plasmodium* sp, *Leishmania* sp, *Trypanosoma cruzi* and *Trypanosoma brucei*.

9. Compositions according to claim 8,
characterized in that the pathogenic agent is HIV.

20 10. Compositions according to any one of claims 1
to 7 in combination with claim 9, characterized in that the said preparations are obtained by incubation of first means expressing the CD4 receptor and/or HIV co-receptors with second means expressing at least the
25 preserved regions in gp120 or gp160 envelope proteins.

11. Compositions according to claim 10,
characterized by the fact that the first means used are composed of autologous cells of mammals stimulated so as to express the CD4 receptor and/or HIV co-receptors,
30 in a sufficient quantity for the required interaction.

12. Compositions according to claim 10,
characterized in that the first means are viral vectors expressing CD4 and/or HIV co-receptors such as

baculovirus, the Semliki forest virus or yeast such as *Saccharomyces cerevisiae*, at their surface.

13. Compositions according to claim 10, characterized in that the first means are liposomes 5 expressing the CD4 receptor and/or HIV co-receptors at their surface, the said expression being made by viral vectors.

14. Compositions according to any one of claims 10 to 13, characterized in that the second means are 10 composed of previously transformed cells with a viral vector comprising at least the preserved regions in gp120 or gp160 envelope proteins, or are composed of such viral vectors.

15. Compositions according to any one of claims 10 to 13, characterized in that the second means are 15 infected cells producing HIV or are composed of the HIV virus itself.

16. Compositions according to any one of claims 10 to 13, characterized in that the second means are 20 composed of gp120 or gp160 envelope proteins in natural or recombining form, or of at least the preserved regions of these proteins.

17. Compositions according to any one of claims 10 to 16, characterized in that one of the co-receptors of 25 HIV is replaced by a monoclonal antibody.

18. Compositions according to claim 17, characterized in that they comprise soluble gp120 as the first means, possibly in recombining form, and soluble CD4 as the second means together with a 30 monoclonal antibody directed against the area of gp120 that is fixed on co-receptors.

19. Compositions according to any one of claims 1 to 18, characterized in that the preparations are fixed with aldidrithiol-2 after incubation.

20. As new products, the serums and antibodies 5 formed against compositions according to any one of claims 1 to 19,

21. Vaccinal compositions against an infectious pathology intended for administration to a mammal, characterized in that they contain an effective 10 quantity of an immunogenic composition according to any one of claims 1 to 19, with an inert vehicle acceptable for administration to a mammal, and possibly with an additive.